Review of the U.S. Coast Guard's Chief Warrant Officer Specialties

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Background

- ◆ Recent changes in USCG mission, enlisted rating structures, and technology may have affected the CWO community
  - ▶ Joint Ratings Review, transition to DHS
- ◆ Assistant Commandant ordered a formal review of USCG's CWO specialty structure
- ◆ This study is part of a larger Coast Guard effort to revise the occupational structure of its CWO community
  - ▶ The Coast Guard will use our findings in combination with other research, forecasts, requirements, and other information

CWO Population in USCG

Specialty		Active	Reserve
Aviation Aircraft Maintenance	AVI	77	
Bandmaster	BNDM	3	
Boatswain	BOSN	301	27
Communications	COMM	98	14
Electronics	ELC	137	9
Engineering	ENG	367	38
Finance and Supply	F&S	161	26
Information Officer	INF	10	1
Materiel	MAT	100	6
Medical Admin	MED	22	4
Personnel	PERS	148	26
Port Safety and Security	PSS		64
Physician's Assistant	PYA	1	
Weapons	WEPS	48	
	Total	1,473	215

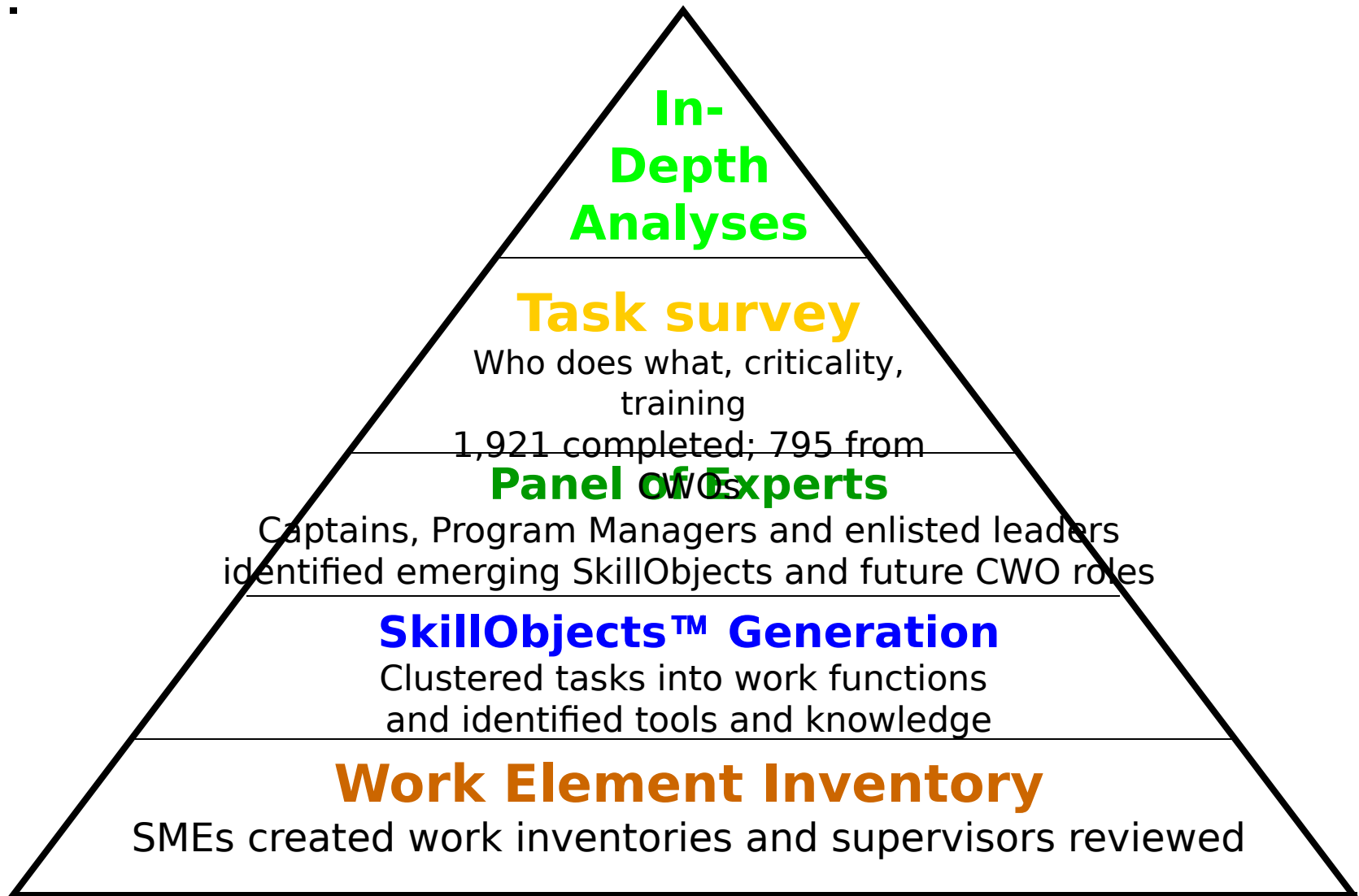*Investigators* (INV) and *Detailers* draw from several specialties

Issues

- Should any specialties be combined?

- Should new specialties be created?

- What should the source ratings be for each specialty?

- What training is applicable across specialties?

- Where are the most important training deficiencies?

- What new competencies will CWOs need in the future?

Method

In-Depth Analyses

Task survey
Who does what, criticality, training
1,921 completed; 795 from CWOs

Panel of Experts
Captains, Program Managers and enlisted leaders identified emerging SkillObjects and future CWO roles

SkillObjects™ Generation
Clustered tasks into work functions and identified tools and knowledge

Work Element Inventory
SMEs created work inventories and supervisors reviewed

SkillObjects is a trademark of the SkillsNET Corporation

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Work overlap among job families
(16 largest overlaps)

Source job family	Matching job family	Workload match
Port Safety and Security (PSS)	Boatswain Line (BOSN)	62%
Electronics Support (ELC)	Boatswain Line (BOSN)	46%
Port Safety and Security (PSS)	Aviation Aircraft Maintenance Rotary Wing (AVI)	44%
Electronics Support (ELC)	Materiel Marine Safety (MAT)	43%
Port Safety and Security (PSS)	Electronics Support (ELC)	43%
Port Safety and Security (PSS)	Information Officer (Public Affairs)	43%
Port Safety and Security (PSS)	Information Officer Media Motion Picture Relations (INF)	43%
Port Safety and Security (PSS)	Boatswain Staff-Marine Safety (BOSN)	40%
Electronics Support (ELC)	Boatswain Staff-Marine Safety (BOSN)	38%
Electronics Support (ELC)	Aviation Aircraft Maintenance Rotary Wing (AVI)	38%
Electronics Support (ELC)	Information Officer (Public Affairs)	38%
Finance and Supply Ashore (F&S)	Communications & Information Systems (COMM)	37%
Port Safety and Security (PSS)	Weapons (WEPS)	37%
Electronics Support (ELC)	Engineering Support (ENG)	37%
Communications Staff (COMM)	Boatswain Staff-Marine Safety (BOSN)	36%
Port Safety and Security (PSS)	Materiel Marine Safety (MAT)	35%

Marine Safety—Possible new specialty

◆ 42 Marine Safety SkillObjects, covering these specialties

ENG	BOSN
MAT	ELC
WEPS	

◆ For 120 CWOs, Marine Safety is more than 50% of their workload

Current specialty	Number for Marine Safety specialty	CG population	Remaining endstrength
ENG	**44**	405	361
MAT	**58**	106	48
WEPS	**18**	48	30

COMMs CWOs see a significantly less clear career path than other CWOs

Average and 95% confidence interval

Mean score for "I have a clearly defined career path"

5 - Strongly Agree

4 - Agree

3 - Neutral

2 - Disagree

1 - Strongly Disagree
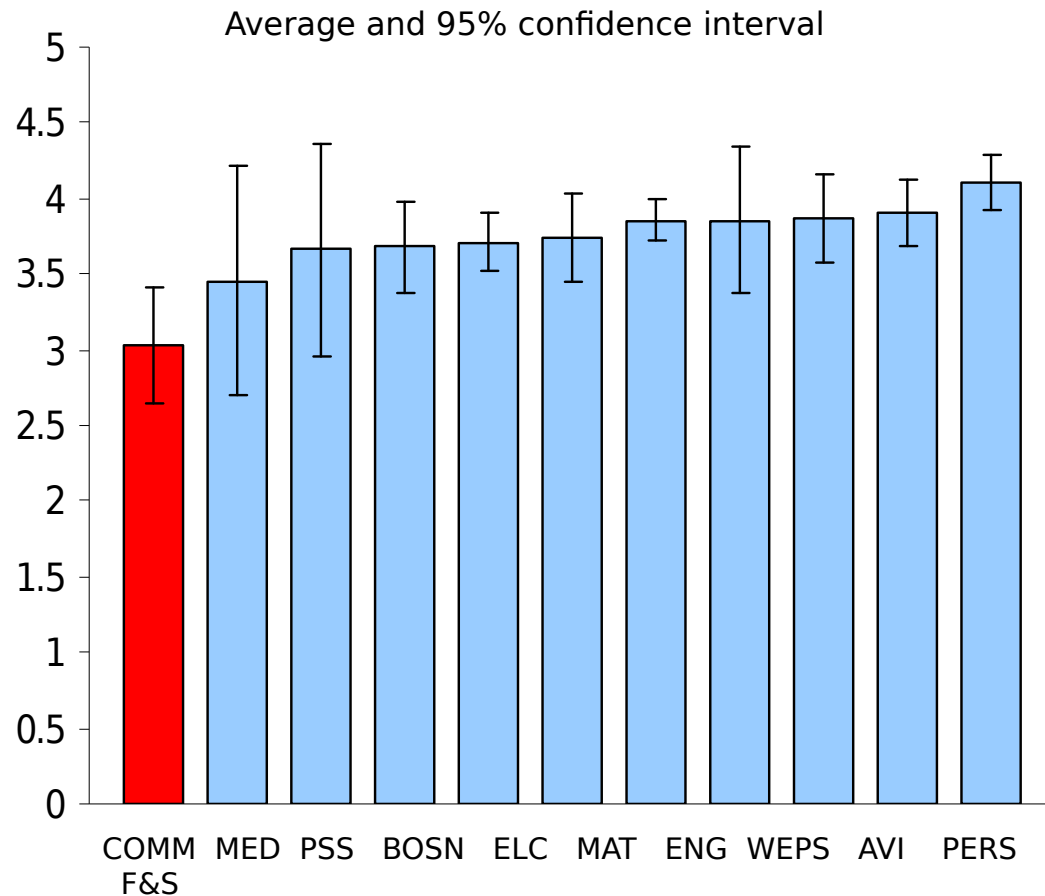
PYA and INF not shown because their sample sizes were too small

Potential new feeder ratings
based on overlap between CWO specialties and ratings

Official feeder ratings in black. Potential new feeder ratings in red.

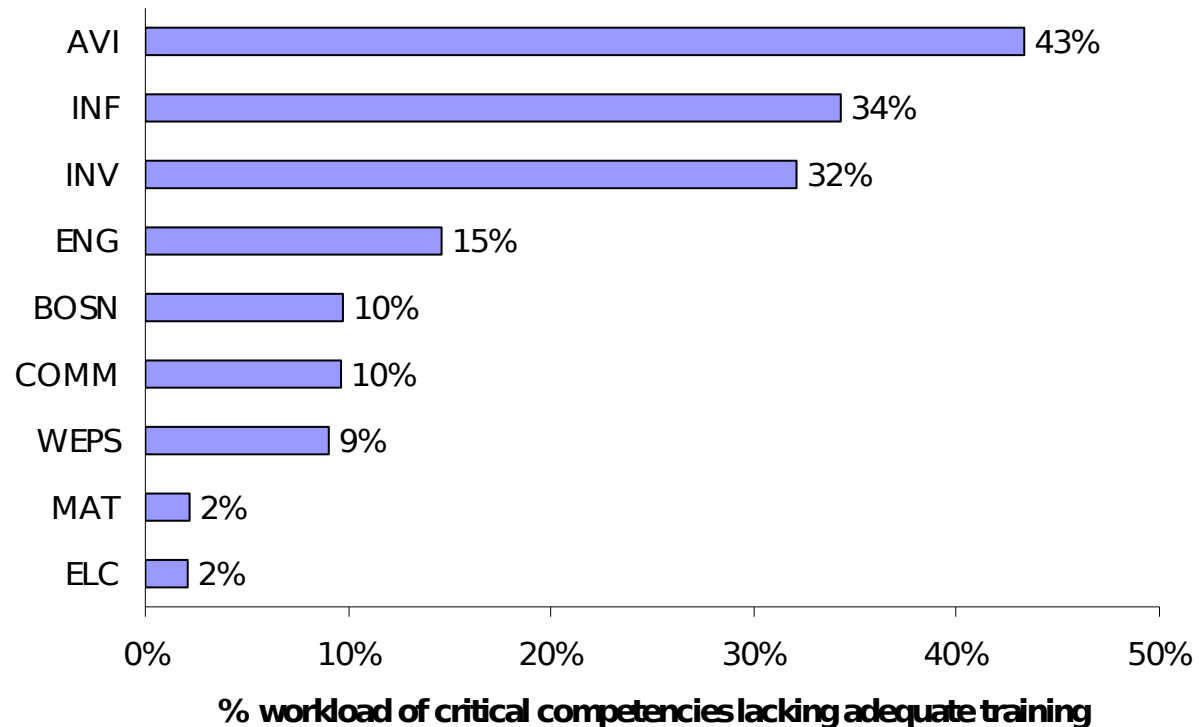Numbers in parentheses show the percent of CWO workload with which E7-E9s are familiar.

Specialty	Potential feeder ratings
AVI	AMT (100%), AVT (100%)
BOSN	BM (100%), MST (93%)
COMM	OS (100%), IT (83%)*
ELC	ET (100%), IT (99%), BM (54%), MST (52%), AVT (51%)
ENG	EM (100%), MK (100%)
F&S	FS (100%), SK (100%), OS (62%), IT (53%), MK (51%)
INF	PA (100%)
INV	IV (100%), BM (100%)*
MAT	AST (55%), DC (32%)
MED	HS (100%)
PERS	YN (100%)
PSS	IV (100%), MST (100%), PS (100%), ET (65%), BM (62%), OS (53%), AST (50%), DC (50%)
WEPS	GM (100%)
Marine Safety	MK (81%)*, MST (71%)*

An asterisk (*) denotes potential feeder ratings with high percentage matches in technical (vice leadership or administrative) competencies.

Many CWOs lack adequate training for critical competencies

62% of CWOs reported that they had no formal training for their current position

AVI — 43%
INF — 34%
INV — 32%
ENG — 15%
BOSN — 10%
COMM — 10%
WEPS — 9%
MAT — 2%
ELC — 2%

0%   10%   20%   30%   40%   50%

% workload of critical competencies lacking adequate training

PERS, MED, and F&S are not shown because they did not have critical work functions

Training deficiencies in the most critical competencies

Percentages indicate respondents who reported lacking adequate training

AVI	
Electrical Equipment Installation	100%
Mechanic Equipment Maintenance	80%
Work Coordination	73%
Electronic Equipment Maintenance	71%
Information Gathering and Idea Development	70%
Mechanic Equipment Installation	68%

COMM	
Security Evaluation	61%
Security Management	45%

WEPS	
Firing Plan Preparation	60%
Ordnance Document and Data Management	60%
Program Development	60%
Personnel Training	48%
Ordnance Management	46%

INV	
Witness Management	43%
Administrative Document Review	38%
Office and Personnel Management	35%

ELC	
Security Management	70%
Procedure Implementation	67%
Personnel Evaluation	63%

BOSN	
Decision Making	60%
Work Safety Management	48%
Port Security Management	44%

INF	
Information Products Development	75%
Story Idea Development	75%
Program Coordination	67%
Process Evaluation	53%
Media Access Coordination	50%

ENG	
Data Analysis	58%
Procedure Development	53%
System Design Evaluation	48%
HAZMAT Spill Response-Clean Up	47%
Equipment Repair	47%
Control Systems Maintenance	46%

MAT	
Program Management	54%
Preventive Maintenance	44%
Electrical Installation and Maintenance	44%
Fire and Hazardous Materials Handling	40%

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# Potential Competencies for CWO Cross Specialty Training

Work Function	Specialties performing the function
Personnel Management and Development	PSS MED ELC F&S PERS WEPS MAT INF BOSN COMM AVI ENG
Business Administration	
-- Budget Management	F&S ELC INF PERS ENG WEPS MAT BOSN
-- Resource Management	PSS ELC ENG WEPS INF BOSN PERS AVI
-- Procurement and Contract Management	ENG F&S MAT PSS AVI
-- Program Management	ELC ENG BOSN MAT PERS

- ◆ Personnel Management and Development
  - ► 63% of responses for this function indicated inadequate or no training
- ◆ Business Administration
  - ► 61% of responses for this function indicated inadequate or no training

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CWO Role: Leader or technical expert?
Role varies between and within

Percentage of workload
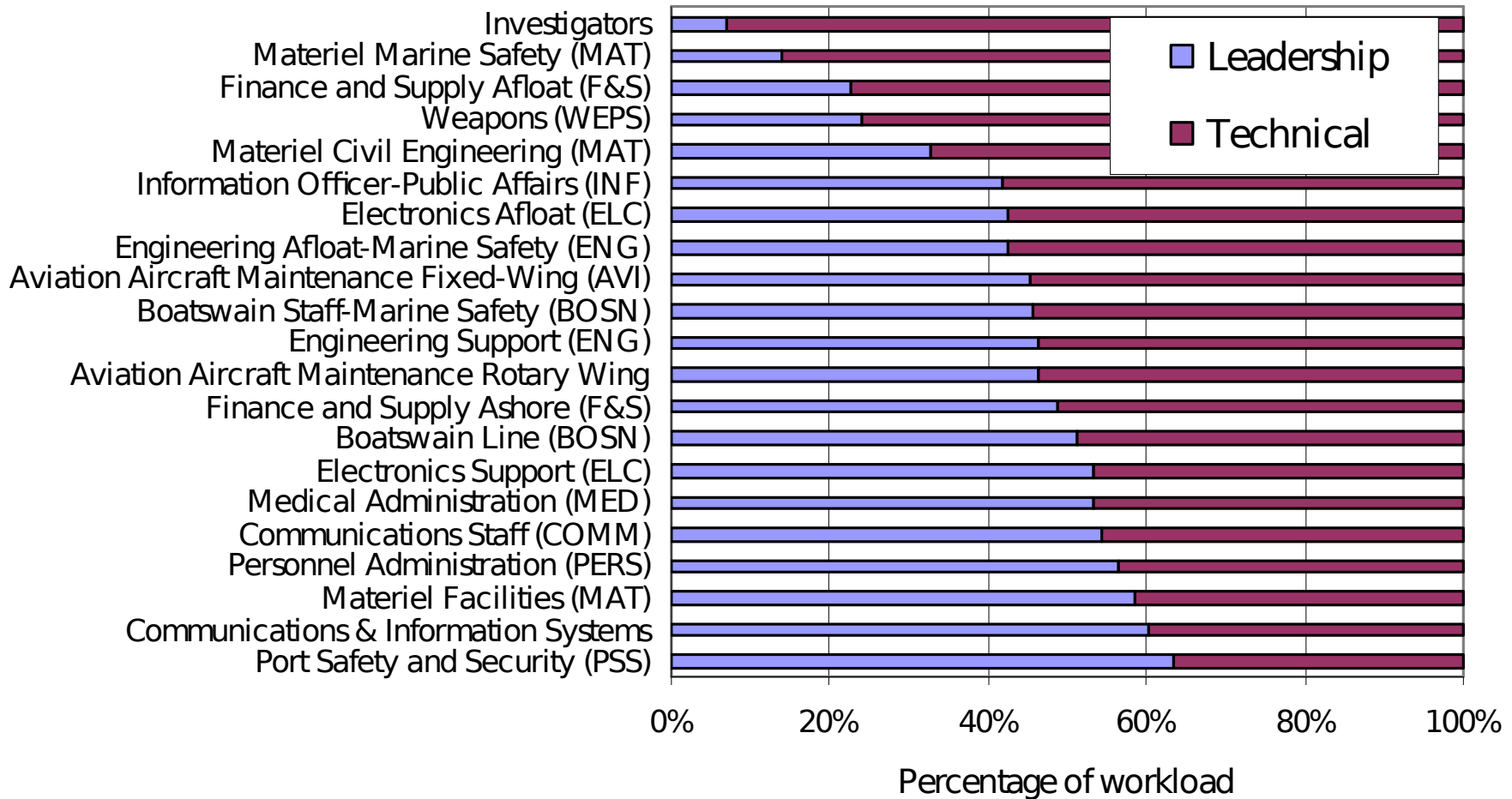
Future CWO roles
Identified by Panel of Experts

Future roles	Reason	Specialty
Sea Marshals	National defense/port security	BOSN, COMMS,
Boarding officers	National defense/port security	WEPS
Other security leadership roles	National defense/port security	
Intel technical experts	Integration into DHS; integration of intel with FBI	
Expert in large, integrated systems	Missions depend on new	ELC
Project Manager	C4ISR technology	
Project officer/Systems manager	More suitable role	COMMS (for IT work)
Analyst	TILA	F&S
Higher level manager	New information systems; detailed knowledge of pay computation unnecessary	PERS

Emerging Competencies
Identified by Panel of Experts

New competencies	Mission/Technology	Specialty
Emerging threats recognition	National defense	BOSN, COMMS,
Anti-swimmer	National defense	PSS
Intel info dissemination	National defense	
Use of dogs	National defense	
Vertical insertion	National defense	
Configuration Management	Deepwater/integrated systems	ELC
Data fusion	Deepwater/integrated systems	
UAV operation	Deepwater/integrated systems	
Pattern recognition	Deepwater/integrated systems	
Exercise planning		AVI
Scenario analysis		
Liason with contractors	Outsourcing	*Several*
Liason with other agencies	Integration into DHS; Intel	
Integrated information systems	New information technology	
Maritime domain awareness	National defense	
Project management		

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Recommendations

◆ Establish a Marine Safety specialty, drawing personnel from the ENG, MAT and WEPS specialties

  ▶ Draw new Marine Safety CWOs from the MK and MST enlisted ratings

◆ Manage the IT community to ensure that there are suitable career paths for COMMS CWOs and IT enlisted personnel

◆ Consider adding the following newly identified source ratings

  ▶ IT for the COMM specialty

◆ Train CWOs—before accession—in the areas of Personnel Management and Business Administration

◆ Provide specialty training in competencies that were not covered through enlisted experience